

REMARKS

Claims 1-10 and 13 to 23 remain active in the case. Reconsideration is respectfully requested.

The present invention relates to a hair cosmetic composition.

Claim Rejection, 35 USC 112

Applicants retain their position that Claims 1 and 2 are not indefinite because of the fact that no other components of a cosmetic composition, other than the active ether functional group containing cationic surfactant, are described in the claims. In fact, it is conceivable that a hair cosmetic composition or a hair cleansing composition within the scope of the invention could be prepared in which the surfactant component is only an ether type cationic surfactant within the scope of formula (1). This may not normally be the case as is clear from the compositions shown in Table 3 on page 24 of the text. However, the possibility remains that such could be the case. Further, because the present claims are clearly open-ended because of the use of the term "comprising," it follows that other ingredients can be incorporated in a given composition such as one or more of the various cosmetic and hair treatment ingredients described on pages 11-15 of the specification. In addition, as is clear from several of the dependent claims, other types of surfactants can be added to the hair cosmetic or cleansing formulation claimed. Accordingly, the composition embodiments of the invention in which the surfactant of formula (1) is the critically important ingredient are not indefinite as claimed. Withdrawal of the rejection is respectfully requested.

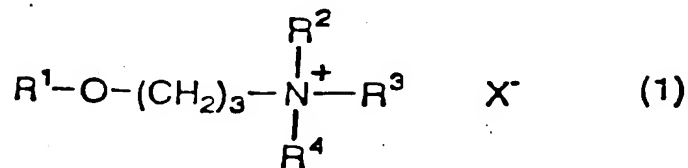
Claims 18 and 21 stand rejected under 35 USC 112, second paragraph. This ground of rejection is respectfully traversed for the same reasons presented above with respect to Claims 1 and 2. Withdrawal of the rejection is respectfully requested.

Claim Amendment

Claim 21 has been amended in order to correct the dependency of the claim. Entry of the amendment is respectfully requested

Invention

As stated previously, one aspect of the invention is directed to a hair cosmetic composition comprising an ether functional group containing cationic surfactant represented by formula (1):



wherein,

R¹ represents a linear or branched C₆₋₂₄ alkyl or alkenyl group,

R² and R⁴ each represents a C₁₋₆ alkyl group or -(AO)_nH in which A represents a C₂₋₄ alkylene group and n is a number from 1 to 6 wherein individual A radicals are the same or different and are in any sequence,

R^3 represents a C_{1-6} alkyl group, a benzyl group or $-(A'O)_mH$ in which A' represents a C_{2-4} alkylene group and m is a number from 1 to 6 wherein individual A' radicals are the same or different and are in any sequence, and

X^- represents an anion.

Another aspect of the invention is directed to a hair cleansing composition based on the formulation of Claim 1.

Claim 13 is directed to a method of treating the hair with a composition containing the cationic surfactant of original Claim 1, while Claim 17 is directed to a method of shampooing the hair using the composition of Claim 7.

Prior Art Rejection

Claims 1-10 and 13-23 stand rejected based on 35 USC 103 as obvious over JP '928 and Harry's Cosmeticology. This ground of rejection is respectfully traversed.

As stated on the record previously, the JP '928 reference discloses a cationic surfactant containing hair conditioning composition that is said to contain a cationic ammonium surfactant that contains ether functionality. However, the cationic ammonium compound disclosed in the reference is of the type in which a fatty hydrocarbon group is attached to at least one oxyethylene unit, whereas the ammonium salt of the present invention contains one, and only one, oxypropylene group attached to the quaternized ammonium nitrogen atom of the surfactant molecule. More specifically, Example 1 of the JP '928 document contains a cationic surfactant of the formula $R(OC_2H_4)_n-N(CH_3)_3 \cdot X$, wherein n is a mean value of 4 which is produced by the process described therein. On the other hand, the

Appln. No. 10/026,641

Reply to the Office Action of July 30, 2003

cationic surfactant of the presently claimed invention is produced by a materially different process as described on page 6 of the specification. In fact, the structure of the cationic surfactant of the present claims is materially different from the quaternized surfactant of the reference that contains oligooxyethylene units therein. Moreover, this difference is not trivial from the viewpoint of properties, indeed, as already has been discussed by applicants on page 2 of the specification where applicants have acknowledged the disclosure of the '928 document. In order to further demonstrate the difference in properties of the oxyethylene group containing surfactant of the reference and the claimed surfactant component of the present composition embodiments which contains an oxypropylene moiety, applicants direct the attention of the Examiner to the enclosed Declaration (37 CFR 1.132). The declaration contrasts an embodiment of the hair treatment composition of the reference based on a cationic surfactant that contains an oxyethylene group as required by the formula of the reference that is very close in structure to the surfactant of Example 1 of the reference with an embodiment of the hair cosmetic composition of the invention that contains the cationic surfactant having formula 3 in Table 1 on page 17 of the specification. The flexibility and smoothness of hair washed with the two compositions when wet and after having been dried were determined in the manner described on page 18 of the text. The results of the tests are indicated in the table below.

		Invention Product	Comparative Product
Ether type cationic surfactant 3		1.5	
Ethylene Oxide-adduct type cationic surfactant			1.5
Cetanol*		4.5	4.5
pH regulator		q.s.	q.s.
Purified water		Balance	Balance
pH (diluted 20-fold with water, 25° C)		5.4	5.3
Wetted Hair	Flexibility	B	B
	Smoothness	A	C
Dried Hair	Flexibility	A	B
	Smoothness	A	C

Applicants submit that it is clear that there is a clear and unobvious distinction between a composition within the scope of the present claims based on an oxypropylene group containing quaternized ammonium surfactant and the composition of the '928 reference that contains an oxyethylene group in the quaternized ammonium surfactant.

The Harry's Cosmetology document has been cited because of the quaternized ammonium compounds disclosed on page 507 of the document. However, these compounds, as cationic surfactants, are quite different from the specific cationic surfactant of the present claims as well as the cationic surfactant disclosed in JP '928. Accordingly, Harry's does not improve upon the deficiencies of the '928 reference and withdrawal of the obviousness ground of rejection is respectfully requested.

Appln. No. 10/026,641
Reply to the Office Action of July 30, 2003

It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

A handwritten signature in black ink, appearing to read "F.O. Oblon", with a long horizontal flourish extending to the right.

Norman F. Oblon
Attorney of Record
Registration No. 24,618

Frederick D. Vastine, Ph.D.
Registration No. 27,013

Customer Number

22850

(703) 413-3000
Fax #: (703) 413-2220
NFO/FDV